STATEMENT OF WORK
Renovation of guards' room in the utilities area
PROPERTY OBO-136
TH Residential compound
USA EMBASSY KHARTOUM, SUDAN

1. Description of Services:

The US Embassy Khartoum has a requirement to renovate the guards' room in the utilities area at Townhouses Compound, known as OBO # 136 in Garden city district, Khartoum. The works shall be done as per drawings, scope of work, specifications and General contract conditions. This project requires an experienced contractor to design and execute the job.

The Contractor shall provide all labor, material, tools, equipment, supervision and other related items required to the complete the project as per scope of work, specifications and attached drawings.

Contractors are advised to visit the site, verify the existing site conditions to develop their proposal.

2. Submittals

The contractor shall submit the following

1. Manufacturer's data: Submit complete data on materials including accessories and fittings.
2. Layout Drawings: Submit set of all drawings, plans, structural, plumbing, electrical… including all required openings
3. by the closure of the project submit the set of as built drawings
4. Concrete mix design certificates and testing reports.

3. Statement of work

The contractor shall renovate the existing old guards room and the fuel tank area, as shown in diagram:

- **The guards' room and the local police force bathroom**

1. The contractor shall demolish the existing old guards' room, with all the related works. The contractor shall be responsible to cart away all the debris offsite on daily basis in accordance with the local regulations.

2. The size of the two rooms shall be around 5.8 m X 3.5 meters as shown in diagram. The F.F.L. of the rooms shall be at least 15 cm above the F.F.L. of the utilities area.

3. The contractor shall install load bearing structure for the newly renovated rooms

- Dig around 1.2 meters deep for the strip footing
- Add around 10 cm of modified soil to reach suitable soil and remove all the debris on daily basis. The contractor shall add and mechanically compact red modified soil in layers. Each layer should not exceed 25 cm in thickness.

- Lay of strip foundation 60 cm wide filled with of foundation stones. The gaps shall be filled with sand. The top of the sand shall be plastered to have leveled surface
- The contractor shall have 40 cm of 2 bricks' thickness wall.
- on top the contractor shall have the grade beam , 40 cm X 30 cm , the reinforcement shall be six Ø16 mm , with stirrups Ø 8 at 20 cm. the finished level of the beam shall be similar to the FFL of the new rooms.
- Above the ground, the contractor shall use 1.5 red bricks thickness walls. The clear height inside the room shall be 2.6 m at least above FFL.
- The grade and top tying beams shall be 40 X 30 cm, with six - 16 mm steel reinforcement bars and 8 mm stirrups @ 20 cm.
- The roof shall be a one mesh of reinforcement bars. The bars shall be 12 mm @ 12.5 cm. Thickness is 13 cm ceiling slab.

4. The contractor shall install steps to allow the entrance/exit from the southern side and the northern side.

5. A parapet wall shall be built on the roof. The height of the parapet wall shall be 50 cm at least. The khafagi shall be placed on top to roof drain toward the south side.

6. **Tiles:-**

1. Install new Ceramic floor tiles and skirting for the Guards' room. Ceramic tiles used shall be manufactured by "Cleopatra" or "El Gawhara" or equal approved, minimum size of 300 x 300 mm. Mortar used is Portland cement and sand mortar; ratios are 1:3 by volume. White cement is to be used as grout. The skirting shall be in all sides 10 cm a with the same tiles. The tiles' samples shall be submitted to the COR per approval.

Install new Ceramic wall and floor tiles for the Police force bathroom. Ceramic tiles used shall be manufactured by "Cleopatra" or "El Gawhara" or equal approved, minimum size of 200 x 200 mm. Mortar used is Portland cement and sand mortar; ratios are 1:3 by volume. White cement is to be used as grout. The tiles' samples shall be submitted to the COR per approval.

2 Job Condition

The installer must examine the substrate and the condition under which tiles are to be installed. Do not proceed with work until unsatisfactory conditions have been corrected.

3. Submittals

The contractor shall submit **five days after contract award**, several color samples for the ceramic tiles, decorative tiles, and the edges and corners for the selection and approval of the COR.

4 Products

4.1 Ceramic tiles for walls: manufactured by "Cleopatra" or “El Gawhara”, Vogue Ivory & “Vogue anth” brand or equal approved, minimum size of 600 x 300 mm.

4.2 Ceramic tiles for floors: manufactured by "Cleopatra" or “El Gawhara” or equal, Mono color brand white color or equal approved especially for floors, minimum size of 300 x 300 mm.

4.5 Mortar: Portland cement and sand mortar, ratios are 1:3 by volume.

4.6 Thin set mortar or tile adhesive: Readymade, for installing ceramic on top of existing mosaic tiles, or on plastered surfaces product of Scib, or equal approved.

4.7 Grout: white cement.

5 Execution

5.1 Lay tiles from the centerline of each space outward so as to obtain border tile of equal width and larger dimension.

5.2 Lay tiles in grid pattern. Align joints if adjoining tiles on floor and walls are the same size. Joints shall be uniform in width.

5.3 Set tile firmly on the mortar bed. Strings or pegs may be used to space tiles that have no spacers. Bring all surfaces to a true plane at the proper position or elevation. Thoroughly beat-in all tiles while the mortar bed is still plastic.

5.4 Make adjustment of tile before initial set of the mortar takes place.

5.6 Terminate work neatly at obstructions, edges, and corners without disturbing the pattern or joint alignment.

5.7 Grouting: before grouting, wet the joints between tiles if tiles have become dry, force a maximum amount of grout into the joints, and fill all gaps and skips. The finished grout shall be uniform in color, smooth, and without voids, pinholes or low spots.

5.8 Cleaning: Upon completion of installation, clean all tile surfaces so they are free of foreign matter and leave finished installation clean and free of cracked, chipped, broken, non-bonded, or otherwise defective tile work.

7. **Plumbing Works:-**

1.

Install a new shower rod, new sink and new squat toilet inside the Bathroom. The contractor shall be responsible to supply cold and hot water (3/4 inch – 20 bar PPR pipes and fixtures) to the bathroom from the nearest pipe and to drain the effluent/ wastewater water to the nearest

manhole (4 & 2 inch PVC pipes and fixtures). All the accessories shall be ideal standard or equally approved by the COR.
The contractor shall follow all the required US and local code regulations to connect the effluent water to the new sewage manhole. The nearest manhole is around 10 meters far from the floor toilet.

2. Products:

The contractor shall furnish and install the following:

PPR Pipes: for hot & cold water supply (¾ inch at least)
Polyvinyl Chloride (PVC): for waste water (2 inch pipe, 4 inch pipe)
Valves: Built-in valves, Grohe or approved equal.
Bathroom sink and toilet: Twyford brand , English made or equal approved .
Floor trap: stainless steel of good quality with a high quality durable stainless cover
Sink mixer: Grohe, Eurostyle brand
Shower mixer and head: Grohe, Euphoria brand, with shower bar and soap holder

3 Execution

3.1 Pipes, joints & fittings

1. Install the pipes, fittings & joints to connect to the existing system in the same installation method and following the instructions listed below.
2. Install pipes, joints & fittings, in accordance with recognized industry practices which will achieve permanently leak proof piping systems, capable of performing each indicated service without piping failure. Install each run with minimum joints and couplings, but with adequate and accessible unions for disassembly and maintenance/replacement of valves and equipment. Align piping accurately at connections, within 2 mm (1/16") misalignment tolerance.
3. Locate piping runs except as otherwise indicated, vertically and horizontally (pitched to drain) and avoid diagonal runs wherever possible. Orient horizontal runs parallel with walls and column lines.
4. Clean exterior surfaces of installed piping system of superfluous materials. During construction, properly cap all lines and equipment nozzles so as to prevent the entrance of sand, dirt, etc. Each system of piping to be flushed prior to testing for the purpose of removing grit, dirt, sand, etc., from the piping for as long as time is required to thoroughly clean the system.
5. In erecting pipe, friction wrenches and risers shall be used exclusively; any pipe cut, dented or otherwise damaged shall be replaced.

3.2 Plumbing fixtures and accessories

1. Install plumbing fixtures and accessories as indicated, in accordance with manufacturer's written instructions, applicable codes and regulations, and in accordance with recognized industry practices to ensure that installation complies with requirements and serves intended function.
2. Protect the installed showers and bathtubs with rigid plywood covers right after the installation to protect from any damage during the installation of the ceramic tiles and other finished activities.
3. Fasten plumbing fixtures securely to supports on building structure. Secure water supplies behind or within wall construction to provide rapid installation.
4. Provide a stop valve in an accessible location in the water connection to each fixture
5. Seal (caulk) all fixtures to walls and floors using G.E. silicone sealant. Match sealant color to fixture color.
6. Replace washers of leaking or dripping faucets and stops.
7. Clean fixtures, trim, and strainers using manufacturers recommended cleaning methods and materials.
8. Upon completion of installation of plumbing fixtures and trim, and after fixtures are water pressurized, test fixture to demonstrate compliance with requirements. Where possible correct malfunctioning units, retest to demonstrate compliance, otherwise remove and replace with new equipment and retest at no cost to Owner.
9. Apply the proper joint sealant and silicone for all joints around all the finished fixtures and accessories as required to provide sealed installations.

8. Electrical works

The extent of the electric work shall include all the rough-in and the finished electric work for the entire kitchen as detailed below:

The contractor shall furnish and install, including all the wiring, conduits and switches.

For the guards' room

a. Two double bulbs – 4 inches light fixtures with Compact fluorescent bulbs (13-15 W) internal
b. One double bulb – weather tight 4 inches light fixtures with Compact fluorescent bulbs (13-15 W)- for external uses
c. light switch
d. AC switch
e. Fan with its switch
f. Four 13 Amp. double receptacles

g. 1 electrical panel- 100 Amp. 12 lines

For the bathroom:-

h. one double bulbs – two inches light fixtures with Compact fluorescent bulbs (13-15 W) internal

i. One double bulb – weather tight two inches light fixtures with Compact fluorescent bulbs (13-15 W)- for external uses

j. One GCFI receptacle- 220 V- 13 Amp, next to the sink - furnished by the USG

k. One -13 Amps- 220 V- receptacles for the exhaust fan

l. 1 exhaust fan – 12 inch in diameter

m. 1 light switch

- The receptacles and light fixtures shall be of high quality and approved by the COR before installation.

E.2 General

2.1 Do not scale from the layout drawings, work according to architectural drawings unless otherwise indicated .

2.2 All equipment layouts are provisional. Final layouts are to be determined by the contractor after coordination with other trades .

2.3 Conductors for lighting circuits shall be in general 3 mm2 & protected by 16 amps. Circuit breakers unless otherwise indicated .

2.4 Conductors for receptacles outlets circuits shall be in general 4 mm2 & protected by 20 amp circuit breakers unless otherwise indicated .

2.5 Protective earth conductors are not indicated on the drawings, but are to be run with all circuits in accordance with the NEC 70 (article 250).

2.6 All lighting switches and receptacles outlets located in general areas shall be installed at 1200 & 450mm above F.F.L. respectively. Lighting switches shall be mounted inside the room on the side of the door handle within 200mm from door frame unless otherwise indicated .

2.7 All receptacles outlets in wet areas, stores shall be mounted at 1200 A.F.F.L unless otherwise shown.

2.8 The contractor shall coordinate all works with other trades and services and incorporate all their exact and final requirements .

2.9 In the absence of any indication on the drawings or in the specifications, the installations are to be in accordance with NEC 70.

2.10 All receptacles in wet areas shall be protected from a ground fault current interrupter GFCI 10mA.

2.11 Equipment ampere ratings are for continuous operation in 50 C ambient temperature outdoors, or in non-air conditional space indoor and 40 C in air-conditioned spaces unless otherwise noted.

3 Products

3.1 All materials will be supplied and installed by the contractor. Other than what is listed on the attached sheet, the contractor shall be responsible for furnishing any other materials to finish the required work stated herein.

1. Light fixtures (as specified on the drawings)
2. Wiring devices, products of (Legrand, Gewiss), or equal approved
3. Wires and cables, products of (ElSharg), or equal approved
4. Conduits and boxes, products of (MEM) or equal approved

E.4 Execution

4.1 The work will be performed according to approved shop drawings. Any changes due to field condition are to be discussed with the COR.

4.2 Conduit joints shall be made by brushing plastic solvent cement on insides of plastic coupling fittings and on outsides of duct ends. Each duct and fitting shall be slipped together with a quick 1/4˝ turn twist to set the joint tightly.

4.3 A 1/4 ˝ nylon or polypropylene pulling rope shall be pulled in each unused or spare conduit.

4.4 All conduits shall be rigid PVC conduit.

4.5 Field-made bends and offsets shall be made with an approved conduit air heaters or a special fittings can be used. Crushed or deformed raceways shall not be installed.

4.6 Conduits shall be securely and rigidly fastened in place at intervals of not more than 2 meters and within 300 mm of boxes, cabinets, and fittings with approved wall brackets, conduit clamps, conduit hangers or ceiling trapeze.

4.7 Conduits shall be fastened to boxes and cabinets with connectors, locknuts and bushings.

4.8 Exposed raceways shall be installed parallel or perpendicular to walls or structural members.

4.9 Power raceways shall not contain more than four 90-degree bends or the equivalent in any one run. Communication raceways shall not contain more than two 90-degree bends or the equivalent in any one run.

4.10 A conduit-coupling fitting, threaded on the inside, shall be installed flush with the finish floor.

4.11 The bottom of boxes installed in ceramic tiles for concealed wiring shall be mounted flush with the tiles and at edges of the tiles to minimize cutting of tiles.

4.12 Color-coding shall be provided for service, feeder, branch and ground conductors. Color shall be green for grounding conductors and white for neutrals. Grounding conductor shall be

bare copper, except where installed in conduit with associated phase conductors. Insulated conductors shall be of the same material as phase conductors and green color coded.
4.13 When the installation is complete, the conduits shall be sealed with approved sealing compound.
4.14 Provide expansion connector for every expansion joint in the building.
4.15 Conductor phase and voltage identification shall be made by color-coded insulation. Conductors with black insulation may be furnished and identified by the use of half-lapped bands of colored electrical tape wrapped around the insulation for all entire length inside power panels and boxes. Phase identification shall be maintained continuously for the length of a circuit, including junctions.
4.16 The color coding for 3-phase low voltage system shall be as follows: Red (A), Yellow (B), and Blue(C).
4.17 The feeders shall be tagged to indicate the electrical characteristics (voltage, HZ, cable size, circuit number and panel designation).
4.18 Control circuit conductors shall be identified by color-coded insulation (black color-coded) and marked by numbers.
4.19 All wires and C.B.'s inside power panels shall be marked by numbers.
4.20 All wires inside light fixtures, receptacles, disconnect switches and boxes shall be marked with circuit numbers and panel configuration.
4.21 All power panels shall be provided with circuit directory card to indicate clearly circuit no., CB size, wire size and load.
4.22 All power panels, disconnect switches... etc, shall be tagged with labels.

5 Test:

5.1 Megger test for cables and wires.
5.2 Performance test for light fixtures

Doors and windows:-

10.

1. The contractor shall furnish and install one Aluminum door for the guards' room (2 m X 0.9 m), and one Aluminum window (1 m X 1 m) as shown in the attached diagram. The door color shall be silver. And shall be non transparent. The panels shall be of white PVC.
- The bathroom shall have one Aluminum window, 30 cm X 30 cm, next to the exhaust fan

2 Submittals

2.1 The contractors shall submit, **as part of their bid:**

1. Manufacturer's specifications, technical data, and standard cross sections.

2. Technical data for all hardware items.

2.2 The contractor shall submit **10 days after contract award,** shop drawings for the fabrication and installation of each window and balcony type, include plans, elevations, sections, details, hardware, attachments to other work, operational clearances and include the following:

1. Aluminum windows, frames, screen panels and fixed panels.
2. Flashing and drainage details
3. Weather-stripping details
4. Glazing details
5. Window system operators: show locations, mounting, and details for installing operator components and controls.
6. Methods of attaching all components to the existing frames, trimming and finishing.

2.3 The contractor shall submit, **after final completion and acceptance of the work,** the warranty certificate

3 Quality Assurance

3.1 Aluminum units: Provide units produced by a firm with not less than five years of successful experience in the fabrication of Aluminum doors, windows, screens and frames, of the types required for this project. All work shall meet UBC and local code requirements for wind loads and seismic zone 2A, earthquakes.

3.2 Weather resistance: Fabricate windows, frames, and screen panels, to include weather stripping and thresholds to prevent the uncontrolled penetration of air and water under normal weather conditions from the interior and the exterior. Glass shall be sealed into the window frame from outside to provide full insulation. Provisions for condensation water drainage should be included.

3.3 The contractor shall take field measurements prior to preparation of shop drawings and fabrication to ensure proper installation and fit.

4 Products

Products of "***Technal, Giad***" or equal approved as specified below:

4.1 Aluminum profiles: Sections and profiles shall be made of extruded aluminum alloys free from defects impairing strength or appearance, medium weight systems, 1.7 mm thickness, frame. Depth and profiles as recommended by manufacturer for system, strength, corrosion resistance, and application of required finish.

Provisions for condensation drainage should be included in the profiles

4.2 Fasteners: Galvanized, aluminum, non-magnetic stainless steel or other non-corrosive metal fasteners, color to match, guaranteed by the manufacturer to be compatible with the windows, frames, screens, hardware, anchors and other items being fastened.

Do not use exposed fasteners except where unavoidable for the assembly of units, and unavoidable for the application of hardware. Provide only concealed screws in glazing stops.

4.3 Compression weather-stripping: Provide manufacturer's standard replaceable stripping of EPDM gaskets complying with ASTM, including central, lateral, and glass beading gaskets, as recommended and guaranteed by the manufacturer to remain permanently elastic, non-shrinking, non-migrating and weatherproofed for the life of the building.

4.4 Glazing shall be double, 6mm thick, clear float glass.

4.5 Finish and colors: Powder coated, electrostatic, silver color.

4.6 Accessories & hardware: Anti-rust, of the best quality available, Aluminum, stainless steel, carbon steel or other corrosion resistant material, designed to smoothly operate, tightly close, and securely lock windows.

For hinged and fixed units: Heavy duty hinges, locks in door leafs, locking gear and plates, Pull handles, limit stop and cylinder in door leaf

For sliding systems: Heavy duty nylon rollers, latch lock self closing in window leaf and manual closing in doors.

4.7 Wooden frames: softwood, dry, free from decay and insect attack, with no knots wider than half the width of the section

5 Fabrication

5.1 Sizes and profiles: The required sizes for windows, and the profile requirements are stated herein and shown on the drawings.

5.2 Verify all windows and balcony openings by field measurements prior to fabrication and indicate measurements on the shop drawings.

5.3 To the greatest extent possible, complete fabrication, assembly, finishing, hardware application, and other work shall be completed before shipment to project site. Disassemble components only as necessary for shipment and installation. All corners, meeting stiles/rails shall be mitered square and reinforced. All frames shall be pre-cut to receive hardware.

5.4. Glazing: Fabricate window units with glazing stops & supports to provide a completely sealed unit, weather tight & water tight. Glazing shall be double.

6 Execution

6.1 Installation, general: Comply with manufacturer's specifications and recommendations for the installation of the panels, accessories, hardware, etc. Maintain continuity of line and

accurate relation of planes and angles. Install in accordance with the manufacturer's installation instructions and the approved shop drawings.

6.2 Aluminum frames should be installed using liquid foam around the frames to provide water & air tight units. Trims should be installed either as part of the frame section or separately to provide finished surrounding for the units.

6.3 All jambs, head and sill shall be set in correct locations, level, square, plumb and in alignment with other work. .

6.4 Drill and tap frames and doors and apply surface mounted hardware items, complying with hardware manufacturer's and template requirements. Use concealed fasteners wherever possible.

6.5 Adjust operating hardware to function properly, without binding, and to provide tight fit at contact points and weather stripping.

6.6 Glass and Glazing: Water-tight and airtight installation of glass product required. Each installation must withstand normal temperature changes, wind loading, impact loading, without failure including loss or breakage of glass, failure of sealants or gaskets to remain watertight and airtight, deterioration of glazing materials and other defects in the work.

6.7 Clean complete system, inside and outside, promptly after installation of glass and sealants. Exercise care to avoid damage to the finish. Remove excess glazing and sealant compounds, dirt and other substances.

9. Install a new steel door (2 m X 80 cm) on the south side door as shown in diagram. The door shall be made of steel pipes 10 X 5. The steel door frames manufactured from commercial steel sheet of 3 mm thickness. . The door shall be fully welded seamless construction with no visible seams or joints on their faces or vertical edges. The final design, color, accessories, hinges… etc of the steel door shall be approved by the COR prior installation.

10. Plaster and paint the external walls. The internal walls of the room and the ceilings and all the affected parts as needed. The interior paints shall be off white water based emulsion paint. The color of the interior walls shall be beige in color. The ceilings shall be white.

The exterior paint shall be of textured paint covered by epoxy paint. The color shall be grey.

The paint shall be of high quality Sadolin, Jotun or equal approved.

- **<u>Fuel tanks area slab.</u>**

1- The contractor shall be responsible to re-level the reinforced concrete slab around the fuel tank area and next to the water tanks' shed

2- The reinforced concrete shall be at least 15 cm thickness with a single mesh layer of steel reinforcement 16 mm bars @ 20 cm. The size shall be 8.4 X 5.5 meters with the exclusion of the fuel tanks area of 4.5 X 2.7 meters as shown in the diagram.
- The contractor shall extend his reinforced steel to the sides of the fuel tank area to a height of 60 cm above existing FFL with the same reinforcement.

Specs of Reinforcing Bars: ASTM A 615/A 615M, Grade 420 (Grade 60), deformed.

- The concrete shall be ready mix concrete with the following specs:-

a. Maximum Slump: 125 mm.
b. Maximum Slump for Concrete Containing High-Range, Water-Reducing Admixture: 200 mm after admixture is added to concrete with 50 mm to 75 mm slump.
c. Compressive Strength (28 Days): 30 MPa minimum.
d. Maximum Water-Cementitious Materials Ratio: 0.54 for non-air-entrained concrete and 0.45 for air-entrained concrete.

The work shall include excavation of topsoil, the refill works and compaction to achieve a leveled surface. The finish level of the platform shall match the level of the existing curb.

3- The contractor shall place a vapor barrier on the base of the platform.
Vapor Retarder: Polyethylene sheet, ASTM D 4397, not less than 0.20 mm (8 mils) thick.

4- Create expansion joints in slab-on-grade to form panels of patterns. Use saw cuts inserts 6 mm wide by one-fourth of slab depth; provide joints not exceeding 4.0 meters in either direction and located to be conform to bay spacing wherever possible.

5- The work shall include excavation of weak areas of topsoil, the refill works and compaction. The finish level of the paved area shall be same texture as surrounding area. The entrance/ exit level shall be adjusted to allow the smooth entrance and exit of the area

11. The contractor shall be responsible to work with the existing security measures which include but not limited to the cutting and reinstalling of the existing concertina wire and other items required by the Regional security Officer, RSO.
12. The contractor shall be responsible to relocate all the existing electrical and plumbing fixtures that obstruct the execution of the project with the approval of the COR.

13. The contractor shall carry out all earthwork required to finish up the work according to drawings, specs and scope of work. Any deviation shall be approved by the COR before installation.
14. The contractor shall maintain existing utilities indicated to remain and protect them against damage during the project. Damages caused by works, shall be repaired by the contractor at no additional cost to the Government.

3. GENERAL CONDITIONS OF CONTRACT

I GENERAL

This is a firm fixed price turnkey job for the entire work and amount quoted shall include all work described in attached drawing, scope of work and general condition of contract. The lump sum price quoted shall be fixed and nothing extra will be entertained on any account.

Contractor's staff is subject to such restriction for entry and exit as are required by the Embassy's security requirement. Contractor's staff will be subject to security cleared as required by the Embassy.

Contractor shall restore all surfaces disturbed by construction to match with existing finish.

Any deviation from the original contract/scope of work shall be informed to COR before work begins. No additional work or changes will be carried out without a contract modification.

All material shall be new, checked and approved by COR prior to installation and proper test certificate of the materials to be submitted.

2 Responsibilities of contractor

Contractor shall be responsible for procuring, supplying, transporting, and providing all labor, materials, tools and plant and equipment etc., required for completion of the work in all respects and as per the scope of the work.

All expenses towards mobilization at site and demobilization including bringing in equipment, workforce and materials, dismantling the equipment, clearing the site etc. shall be deemed to be included in the rates quoted by the contractor against various items of schedule of rates and no separate payment on such expenses shall be entertained.

Contractor shall employ and provide one full time engineer to supervise the project and has experienced of carrying out such type of work.

Contractor shall not proceed with next activity until previous activity will be checked and approved by COR. Contractor shall mentioned all inspection dates in the schedule chart

Contractor should keep the site clean and accessible to Embassy employee all time

3 Specifications

Work under this contract shall be carried out strictly in accordance with specifications attached and will meet US and Local codes.

4 Execution of work

The Contractors are advised to review the attached set of drawings, material specifications and scope of work. The Contractor should visit and walk through the site to familiarize themselves with the site conditions to understand the exact quantum of work.

On award of the work, Contractor shall submit a bar chart within 3 days for approval of the Contracting Officer Representative (COR). All dates and time schedule agreed upon should be strictly adhered. Contractor shall notify the COR well in advance regarding the problems, if contractor is expecting/facing during the execution of the project.

The contractor shall prepare and send week's ahead activity plan via e-mail.

For dismantling/blocking or making connection to any existing services or any shut-down, contractor shall inform the COR at least three working days in advance and proceed with the work only after the permission from the COR.

The duration of the job is around 35 days

5 Drawings

Drawings shall be followed as closely as actual construction allows. Any deviations require the Contracting Officer's prior approval.

6 Materials

All materials used on this work shall be new and conforming to the contract specifications as per US and Local codes

Materials shall conform to the latest US Standards specifications as amended to date and carry certification mark. Contractor shall submit material samples and catalog for approval.

All materials used on the project shall be approved by the Contracting Officer Representative (COR) before use.

Any changes/ substitute on material shall need to be approved by COR before proceed.

7 Storage of materials

All materials shall be stored in a proper manner protected from natural elements so as to avoid contamination and deterioration.

All reinforcement bars shall be stored in such a way to prevent deterioration, corrosion, scale formation and rusting. Every bar shall be checked or inspected before assembling on the work. Defective, brittle or bent bars shall be discarded

8. Site clearance and cleanup

The Contractor shall clear away all debris and excesses materials accumulated at the site and dispose it away from the Embassy premises and maintain a neat site conditions.

On completion of project, Contractor shall remove all surplus materials and leave the site in a broom clean condition.

9. Workmanship

Workers working on the site shall be skilled in their job and have experience in same type of job.

10. Working Hours

Working hours shall be 8:30 A.M. to 4:30 P.M. Sunday to Thursday. No work shall be done on Fridays, Saturdays and holidays without the prior approval of the Contracting Officer.

11. Security Clearance

The Contractor shall inform and provide in writing transportation details (vehicle registration number, drivers name and date of delivery) to the COR at least 24 hours in advance for material deliveries.

Contractor shall give his workers name at least 3 days in advance to get the security clearance. All the workers shall have the photo ID or photo ID with the company name.

12. Safety

Contractor is responsible and shall continue management and implementation of a safety and health program throughout construction.

The Contracting Officer and the Post Occupational Safety and Health Officer [POSHO] reserve the right to suspend work when and where Contractor's safety and health program is considered to be operating in an inadequate or non-complying manner.

Contractor shall provide all Personal Protective Equipment for the workers as per the requirement of the site. Work will be stopped in case the proper protection equipment is not found with the workers and the lapse of time shall be at the Contractor's expense.

Contractor will not leave the work site in an unsafe condition or any other condition that might cause injury to personnel, damage to existing work, plants or equipment.

Contractor will use all safety gadgets e.g. hard hats, cotton gloves and goggles as required on site to avoid the accident.

Any equipment or work considered dangerous shall be immediately discontinued

13. Warranty

The contractor shall guarantee that all work performed will be free from all defects in workmanship and materials and that all installation will provide the capacities and characteristics specified. The contract further guarantees that if, during a period of three years from the date of the certificate of completion and acceptance of the work, any such defects will be repaired by the contractor at his expenses.

TH-Renovation of guards' room in the utilities area

	Item	count	unit	unit cost	Total Cost
1	**Mobilization**	1	**job**		
2	**demolition**	1	**job**		
3	**load bearing building foundation, concrete and masonary works as mentioned in SOW and specs**	21	**M2**		
4	**wall tile works**	21	**m2**		
5	**floor tile works**	26	**m2**		
6	**bathroom fixtures as specified in the SOW**	1	**job**		
7	**plumbing works as specified in the SOW**	1	**job**		
8	**electrical works as specified in the SOW**	1	**job**		
9	**Alumnim door 2m X 1 m.**	2	**m2**		
10	**two Alumnim windows**	1.1	**m2**		
11	**one steel door**	2	**m2**		
12	**Painting**	60	**m2**		
13	**Fuel tanks area slab**	34	**m2**		
14	**Miscellinuous works**	1	**JOb**		
	Total				